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Judicial Checks and Balances

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Abstract

In the Anglo-American constitutional tradition, judicial checks and balances are often seen as crucial guarantees of freedom. Hayek (1960) distinguishes two ways in which the judiciary provides such checks and balances: judicial independence and constitutional review. We create a new data base of constitutional rules in 71 countries that reflect these provisions. We find strong support for the proposition that both judicial independence and constitutional review are associated with greater freedom. Consistent with theory, judicial independence accounts for some of the positive effect of common law legal origin on measures of economic freedom. The results point to significant benefits of the Anglo-American system of government for freedom.

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1. Introduction.

Over the centuries, societies have acquired institutions designed to guarantee the freedom of their members, defined as the absence of coercion by the government (Hayek 1960). Central among these institutions is checks and balances, defined by Encyclopedia Britannica (2003) as the principle of government under which separate branches are empowered to prevent actions by other branches and are induced to share power. The importance of checks and balances was recognized by the early commentators on the English government (Locke 1690, Montesquieu 1748), and later influenced the American constitutional thinking (Madison, Hamilton, and Jay 1788).

A special role in the Anglo-American thinking on checks and balances is played by the courts (Madison, Hamilton, and Jay 1788, Hayek 1960, Buchanan 1974).[2] Hayek (1960) distinguishes two ways in which the judiciary can limit the power of other branches. First, the creation of laws and the administration of justice can be separated. Legislature makes laws, but independent judges enforce them, without interference from the legislature or the executive. Second, law- and policy-making can itself be subject to review by courts for their compliance with the constitution.

Countries build the mechanisms of judicial independence and constitutional review into their constitutions. Some, such as the United States, assure both judicial independence and extensive constitutional review; other countries, such as Vietnam, allow for neither. In this paper, we assemble a new data set of constitutional provisions for judicial independence and constitutional review for 71 countries around the world. We then ask the basic question: are they associated with

[2] Recent research in political economy clearly recognizes the importance of checks and balances (Persson and Tabellini 2000, Laffont 2000). This research focuses entirely on the division of powers between the executive and the legislature, and pays scarcely any attention to the role of courts.

economic and political freedom? We measure economic freedom as security of property rights, the lightness of government regulation, and the modesty of state ownership. We measure political freedom as democracy, political, and human rights.

Theoretically, judicial independence and constitutional review work in different ways. When the executive does not control judges, they are not as partial to his wishes. According to Alexander Hamilton, "nothing can contribute so much to [the judiciary's] firmness and independence as permanency in office" (Federalist Papers, No. 78). Judicial independence is of obvious value for securing property and political rights when the government is itself a litigant, as in the takings of property by the state. But judicial independence is also socially valuable in purely private disputes when one of the litigants is politically connected, and the executive wants the court to favor its ally. In principle, judicial independence promotes both economic and political freedom, the former by resisting the state's attempts to take property, the latter by resisting its attempts to suppress dissent.[3] In the 17th century England, opposition to the courts of royal prerogative, controlled by the king and used by him both to expropriate the property of his opponents and to stop political criticism through libel laws, was the crucial source of support for judicial independence.

Besides seeking to influence judges, the executive and the legislature would also wish to pursue policies and pass laws that benefit themselves, or democratic majorities, or allied interest

[3] Landes and Posner (1975) have a different take on judicial independence. In their view, judicial independence prevents legislatures from undermining the laws passed by the previous legislatures through direct power over judges, and thereby raises the ex ante price that legislators can extract from the interest groups buying legislation. It is a commitment device. We also note that judges are not intrinsically more supportive of private property than the executive or the legislator, but are merely more insulated from immediate political pressures when they are independent. Along these lines, Besley and Payne (2003), looking across U.S. states, find that the elected judges pursue more populist policies than the appointed ones in the area of employment discrimination.

groups. Constitutional review is intended to limit these powers. By checking laws against a rigid constitution, a court – particularly a Supreme or a Constitutional Court – can limit such self-serving efforts. In effect, courts rather than legislators become final arbiters of what is law. Because constitutional review is used to counter the tyranny of the majority, it may be of particular benefit in securing political and human rights, as well as preserving democracy. For example, while the U.S. Supreme Court has long accepted the government's power to tax and regulate various activities, it has been more active in protecting political rights.

Historically, judicial independence and constitutional review evolved in very different ways. Dawson (1960) and Hayek (1960) trace judicial independence through the English history, including the reliance on trials by jury starting in the 12th century, the Magna Carta in the 13th, and the 17th century revolutionary fight against the courts of royal prerogative. The 1701 Act of Settlement granted judges lifetime appointments as well as independence from Parliament. The mechanisms of judicial independence were transplanted by England as part of the common law tradition into its colonies, including the United States. Civil law countries have not adopted this idea in nearly as consistent a way, and in fact judges have remained in most instances subordinate to the executive.

Glaeser and Shleifer (2002) present a theoretical model that explains why judicial independence (along with jury trials), is the defining characteristic of common law. They argue that any legal system faces a basic tradeoff between vulnerability of law enforcers to either private subversion through bribery and intimidation or public subversion through executive control. Centralization of the legal system, including subordination of the judges to the king, protects them from private subversion, but makes them vulnerable to state influence. Decentralization, including judicial independence, isolates the judges from the immediate wishes of the king, but renders them more vulnerable to private influence. The authors argue that, in the 12th and 13th centuries, England

was a more peaceful and less divided country than France, and therefore it was efficient for England to adopt a less centralized system of law enforcement, which became the common law. France, being less peaceful, eschewed judicial independence.

In contrast to judicial independence, the idea of limiting the law-making power of Parliament is foreign to the English constitution (Dicey 1885). Hayek (1960) traces this idea to the 18th century United States, and in particular to the creation of the Supreme Court, which, following the Marbury vs. Madison decision, came to check both the laws and the executive acts against a difficult-to-amend U.S. Constitution. Following the U.S. example, constitutional review gained some popularity in post-colonial Latin America, and was widely adopted in Western Europe after World War II specifically as a mechanism to secure political freedom against the risks of communism and fascism (Friedrich 1968). The channels of transplantation of constitutional review are thus also relatively old, but very different from those of transplantation of common law.

We assemble measures of judicial independence and constitutional review around the world, and assess empirically their influence on economic and political freedom. Our measures of judicial checks and balances come from national constitutions, which are significantly influenced by transplantation and do not change rapidly. In contrast, our measures of freedom are the more rapidly changing "outcomes," such as subjective assessments of freedom and patterns of government regulation. As a consequence, we think of the constitutional rules as pre-determined with respect to the freedoms. We also consider the subset of countries whose constitutions have not changed for 20 years prior to the time of measurement.

Consistent with the hypotheses of Hayek and others, we find that both judicial independence and constitutional review are strong predictors of freedom. We find that judicial independence is important for both kinds of freedom, whereas constitutional review matters for political freedom.

The different channels of transplantation also enable us to examine the mirco-foundations of the empirically observed role of legal origin as a predictor of a broad range of economic and regulatory outcomes. Recent research shows that, compared to civil law and socialist law countries, common law countries exhibit better protection of investor rights (La Porta et al. 1997, 1998), less aggressive regulation of new entry and labor markets (Djankov et al. 2002, Botero et al 2003), and more generally higher scores on a variety of measures of security of property rights (La Porta et al. 1999). Quantitatively, these differences among legal origins are large. Legal origin has proved to be a particularly useful variable for economic analysis, because laws have been transplanted by relatively few colonial powers, leading to systematic variation in the legal rules. Yet despite this evidence, the exact mechanism through which legal origin matters has remained uncertain.

Consistent with both history and theory, judicial independence is empirically strongly associated with common law legal origin, and is itself a strong predictor of some of the same economic freedoms as the common law. This allows us to dig deeper into the micro-foundations of legal origin and to ask whether its influence on economic freedoms is in part through judicial independence.[4] If the transplantation of common law brings with it independent judges, and if such judges succeed in stopping excessive political intervention into the economy, then judicial independence may be one channel of common law's beneficial effects on the security of property rights.[5] In our data, judicial independence accounts for some, though not all, of the beneficial effects of legal origin on economic freedom.

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[4] Beck, Demirguc-Kunt, and Levine (2003) ask whether the measures of checks and balances we have collected account for the beneficial effects of common law on financial development, and find some empirical support for that idea.

[5]Of course, there are other potential channels, including trial by jury, and more generally greater reliance on court-enforced private contracting in the common law countries (Djankov et al. 2003).

2. Data.

Our analysis is based on a sample of all 71 countries covered in the Maddex (1995) Encyclopedia of Constitutions, with the exception of transition economies (whose constitutions are rapidly changing). We do not expand country coverage to assure the compatibility of our coding with Maddex, but do supplement his data with information from actual constitutions. Table 1 summarizes the definitions and sources for all variables in the paper.

We use four measures of economic freedom. The first is a subjective index of the security of property rights against infringement by the government. The second is the number of different steps that a start-up business has to comply with in order to begin operating as a legal entity (Djankov et al. 2002). The third measure is the intensity of regulation of the employment contracts (Botero et al. 2003). The fourth is an estimate of government ownership of commercial banks as of 1995 (La Porta et al. 2002). The last three measures have the advantage of being objective rather than survey-based estimates of freedom from political interference in markets.

We use three measures of political freedom, all of which are subjective assessments, but come from different data sources. They include a democracy score, an index of political rights, and an index of human rights.[6]

Economic and political freedom are highly positively correlated. A few countries such as Kuwait, Saudi Arabia and Singapore score high on economic but low on political freedom. Other

[6] The correlations among the measures of freedom within the same category are high. In the economic freedom category, countries that score high on property rights tend to require few procedures to start a business (-0.57 correlation), regulate employment lightly (-.39 correlation), and have low government ownership of banks (-.66 correlation). In the political freedom category, countries that score high on the index of political rights also score high on democracy (0.91 correlation) and high on human rights (0.90 correlation). Similarly, countries that score low on democracy tend to score low on human rights (0.82 correlation).

countries, like Haiti, score low on the former and high on the latter. But such countries are an exception, as economic and political freedom typically go hand-in-hand. Countries that score high on property rights also score high on democracy (correlation is 0.60), political rights (0.68 correlation), and human rights (0.71 correlation). Similarly, countries that require a large number of procedures to setup a new business score low in democracy (-0.25 correlation), political rights (-0.33 correlation), and human rights (-0.42 correlation). Political freedoms are less highly correlated with employment laws, and very negatively correlated with government ownership of banks.

We relate freedom to two sets of its potential determinants: judicial independence and constitutional review. We collect *de jure* variables derived from national constitutions.[7] These variables reflect the relatively permanent features of a country's institutional environment, as compared to political outcomes such as the turnover of politicians, for example. By collecting these data, we also provide a new source of information for the comparative study of institutions.

We collect three proxies for judicial independence, and then combine them into an index. In some countries, judges have life-long tenure whereas in others they are appointed for a short period of time or even serve at the pleasure of the president. When judges have life-long tenure, they are both less susceptible to direct political pressure and less likely to have been selected by the government currently in office. Because judicial independence is particularly important for disputes between the citizens and the state (in freedom of speech cases, contracts, etc.), we focus on the

[7] Constitutional rules, like other laws, are enforced better in some countries than in others. However, recent research points to the importance of actual legal rules in many contexts (La Porta et al. 1998, Djankov et al. 2002, Botero et al. 2003). Moreover, since law enforcement is strongly correlated with per capita income, by controlling for income we also indirectly control for the differences in enforcement.

tenure of two sets of judges: those in the highest ordinary courts, and those in administrative courts.

In addition to judicial tenure, we look at case law as the third dimension of judicial independence. Because the binding power of the precedent checks the ability of the sovereign to influence judges in specific instances, it too serves as a useful measure of judicial independence.[8] In some countries courts merely interpret laws. In others, courts have "lawmaking" powers and judicial decisions are constrained by prior judicial decisions. Based on David (1973), we keep track of whether judicial decisions in a country are a source of law.

Our measure of judicial independence is the average of our measures of tenure of supreme court judges, tenure of administrative court judges, and judicial decisions as a source of law, normalized to lie between zero and one.[9]

We collect data on two aspects of constitutional review. First, in some countries the legislature derives its power and authority from the constitution and is bound by it when making laws. In other countries, there is no hierarchy of laws to restrain the legislature either because there is no constitution or because the legislature can alter it in the same way as it writes new laws. Thus, a rigid constitution -- one that is difficult to modify – may constrain the power of the legislature.

Second, judicial review may constrain the power of the legislature to make laws.[10] In some

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[8] Even in countries where judges are not supposed to make law de jure, they make it de facto (Merryman 1969, Glendon et al. 1982, Damaska 1986). Even these scholars, however, see the difference between countries in which precedents are binding, and countries in which only the codes are supposed to be the source of law.

[9]Excluding judicial lawmaking from the index of judicial independence reduces the statistical significance of the results in some specifications, but does not change the pattern of coefficients on the judicial independence variable.

[10] Alexander Hamilton writes (Federalist Papers, no. 78): "The complete independence of the courts of justice is peculiarly essential in a limited constitution. By a limited constitution, I understand one, which contains certain specified exceptions to the legislative authority; such, for instance, as that it shall pass no bills of attainder, no ex post facto laws, and the like. Limitations of

countries, the constitutionality of laws cannot be challenged. In others, laws are reviewed by ordinary courts (including the Supreme court, as in the US) or by specialized constitutional courts outside of the judicial system (as in many continental European countries). Importantly, countries also differ in the scope of such review. In some countries, such the U.S., Germany, Japan, and Brazil, the institutions established to decide on the constitutionality of laws and actions enjoy the right of full review. The Japanese constitution, for example, stipulates that the Supreme Court is the court of last resort, with power to determine the constitutionality of any law, order, regulation, or official act. In other countries, the review of constitutionality is limited in the sense that it is only available to certain persons or entities, or is restricted to certain aspects of the constitution. In France, the Constitutional Council rules on the constitutionality of laws before they are promulgated, but only the president, premier, the presidents of the two legislative houses, or sixty members of either house can make a request for a review. Once the law has been enacted, the Constitutional Council has no power to nullify it. Finally, countries such as China, Finland, Iran, North Korea, or the U.K. have no review at all. In North Korea, the absence of the power of judicial review by the courts is the consequence of the concentration of all power in the leadership of the communist party, whereas in the U.K., the lack of review derives from the absolute supremacy of Parliament.

Our measure of judicial review captures the extent of such review. The index of constitutional review is the average of our measures of the rigidity of the constitution and judicial review, normalized to lie between zero and one.[11]

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this kind can be preserved in practice no other way than through the medium of the courts of justice; whose duty it must be to declare all acts contrary to the manifest tenor of the constitution void. Without this, all the reservations of particular rights or privileges would amount to nothing."

[11] With respect to the index of constitutional review, we have also considered alternative definitions. First, judicial review may only matter if the constitution is rigid, and hence a proper

Following our earlier research, we also use data on the origin of a country's commercial laws. These include common law (England and its colonies), French civil law (France, countries conquered by Napoleon, and their colonies), German civil law (Germany, Switzerland, Austria, Japan, South Korea, and Taiwan), socialist law countries (Cuba, China, Vietnam, and North Korea), and Scandinavian law countries.

The correlations among our measures of judicial independence, constitutional review, and legal origin are presented in Table 2. The three measures of judicial independence are highly correlated with each other, as are the two measures of constitutional review. The two indices, however, have a statistically insignificant correlation of only .22 (although the correlation between judicial independence and judicial review is a statistically significant .31). The data also show that judicial independence, but not constitutional review, is particularly high in common law countries. Both measures of checks and balances are low in socialist countries. We also find no evidence that either judicial independence or constitutional review is higher in richer countries.[12] These data show that the two kinds of checks and balances do indeed reflect different aspects of the data, and are not just raw measures of institutional goodness.

3. Results.

In this section, we examine the constitutional determinants of economic and political

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index is the product of judicial review and the rigidity of the constitution. Second, constitutional review may be ineffective unless courts are independent, and hence a proper index is the product of judicial independence and constitutional review. Empirically, we have tried these alternative approaches, and describe the results in Section 5 below.

[12]The correlation between the log of per capita income and judicial independence is .12, that between the log of per capita income and constitutional review is -.01.

freedom. In presenting the results, we 1) always use each of the seven measures of freedom summarized above, 2) use the indices of judicial independence and constitutional review, and 3) first present the results with no controls, and then those with additional controls for the possible determinants of freedom. We use three controls. Following our earlier work (La Porta et al. 1999), we include both latitude and ethnolinguistic fractionalization. We include latitude because temperate zones have healthier climates, which might have contributed both to better institutions and better outcomes (Engerman and Sokoloff 1997). We include ethnolinguistic fractionalization because both the available evidence (Easterly and Levine 1997) and theory (Alesina et al. 1999) suggest that ruling groups in ethnically heterogeneous societies expropriate (or kill) ethnic losers, restrict their freedom of opposition, and limit the production of public goods. Both institutions and freedom may suffer when ethnic heterogeneity is high. The third control variable we use is the logarithm of capita income. Many potential determinants of freedom (including the enforcement of constitutions) may be associated with economic development.[13] On the other hand, income per capita is uncorrelated with our constitutional variables.

In presenting the results, we do not include the coefficients on the control variables. While results vary among regressions, we generally find that both economic and political freedom are higher in richer countries, and in countries further away from the equator. Perhaps more surprisingly, the coefficient on ethnolinguistic fractionalization is insignificant in most regressions.

The results on judicial independence are presented in Table 3. With no controls, more judicial independence is associated with statistically significantly greater political and economic freedom on every measure. Reducing judicial independence from 1 (the United States) to 0

[13]In the data, the effects of checks and balances on freedom are actually stronger in the poorer countries, inconsistent with the view that only the quality of enforcement matters.

(Vietnam) reduces the property rights index by 2.19 (roughly to Mexico or Nepal, and halfway toward Vietnam), raises the number of procedures on new entry by 8.06 (roughly to Italy or South Korea, and two thirds of the way toward Vietnam), raises employment regulation by .80 (roughly to Belgium or Turkey, and almost all the way to Vietnam), and raises government ownership of banks by 42 percentage points (roughly to Norway or Ecuador, and compared to 99 percent for Vietnam). The same move from the U.S. to Vietnam levels of independence reduces the democracy score by 3.71 (roughly to Thailand or Nicaragua, and 40 percent toward Vietnam), the political rights index by 2.2 (roughly to Venezuela and Pakistan, and a third of the way toward Vietnam), and the human rights index by 22.5 (roughly to Jordan or Nepal, and a third of the way toward Vietnam). Quantitatively, these are very large effects.

Adding the controls to these regressions shrinks parameter estimates by roughly 20 percent, and reduces to 10% the statistical significance of the effect of judicial independence on political and human rights. The other effects remain highly statistically significant. The effects of judicial independence on economic and political freedom are statistically significant, quantitatively large, and important above and beyond the effects of economic development.

The results on constitutional review are presented in table 4. Without controls, the effects of constitutional review on economic freedom are usually positive, but not statistically significant. In contrast, the effects on political freedom are positive and statistically significant. Reducing constitutional review from the U.S. to Vietnam levels (from .83 to .17) reduces the democracy score, political rights, and human rights all by about a third of the way toward Vietnam -- again a very large effect. When we add the controls, the effect of constitutional review on the property rights index becomes statistically significant, but that on the other measures of economic freedom remains insignificant. In contrast, the effect of constitutional review on the measures of political freedom

becomes slightly larger in magnitude and more statistically significant. If anything, these data suggest that constitutional review is a guarantee of political but not of economic freedom.

Table 5 presents a horse race between judicial independence and constitutional review as determinants of economic and political freedom. The effects of judicial independence on economic freedom remain large and statistically significant, with and without controls, even after constitutional review is added to the regression (the only exception is the regression for political rights with controls). Constitutional review, in contrast, is significant and quantitatively large only in the political freedom regressions that include controls.

The basic story that emerges from this evidence is that checks and balances coming from the judiciary are an important determinant of political and economic freedom. The "English" institution of judicial independence appears to be particularly important for economic freedom, but less consistently so for political freedom. The "American" institution of constitutional review does not appear to be clearly important for economic freedom, but is especially important for political freedom. These results on the comparative advantage of judicial independence and constitutional review should not detract from the basic message, namely that judicial checks and balances are important guarantees of freedom, even holding economic development and other factors constant.

4. Legal Origins.

In Table 6, we present the regressions of our seven measures of freedom on legal origins, with and without our controls. The omitted category is the French legal origin. The results in the table are striking, especially for economic freedom. Compared to the French legal origin countries, common law countries have sharply higher levels of economic freedom, with and without controls, for virtually every measure of freedom. The magnitude of these effects is comparable to that of

judicial independence (except they are smaller for the property rights index). The results also show that socialist legal origin countries have lower security of property rights and higher government ownership of banks than do the French legal origin countries, but are similar on the regulatory indicators of economic freedom. German legal origin countries also have significantly higher levels of economic freedom than do French legal origin countries, although this result is partly driven by differences in wealth, and becomes less pronounced with controls. Finally, with controls, Scandinavian countries regulate less than do the French legal origin countries, but are not more economically free on other indicators.

In contrast, the differences in the three measures of political freedom between the common law and French legal origin countries are insignificant. However, the levels of political freedom are sharply lower (relative to everyone else) in socialist countries. Compared to the French legal origin countries, German and Scandinavian legal origin countries are more politically free, although these differences generally become insignificant with controls. The bottom line (except for the socialist effects) is that the big difference is one in economic freedom between the common law and the French civil law countries.

This evidence raises an obvious question in light of the findings of Tables 2-5, namely to what extent is the legal origin effect on economic freedom the result of the greater judicial independence in the common law countries. Is judicial independence in fact the channel of the beneficial influence of the common law on property rights, regulation, and government ownership? This question is addressed in Table 7.

The results are mixed. For the property rights index, we have the dramatic result that judicial independence wipes out the difference between the English and the French legal origin countries, suggesting that independent judges are the guarantors of economic freedom. For our regulatory

measures, legal origin continues to exert a highly statistically significant effect on economic freedom, while the effect of independence has "the right sign," but is at best marginally significant. Neither legal origin nor judicial independence matter for government ownership of banks.[14] For political freedom, our measures generally do not account for the variation among countries when all are included in the regression together.

Comparing the results in Tables 6 and 7, at least some of the effect of legal origin on economic freedom is explained by judicial independence. This is strikingly so for the property rights index, but even for the other measures of freedom, the estimated effect of the legal origin falls by about a quarter when judicial independence is included in the regression. Consistent with the theory of Glaeser and Shleifer (2002), judicial independence is an important, though not necessarily the sole, channel of beneficial influence of common law on economic freedom.

5. Robustness.

There are a number of empirical issues that require elaboration. The first concerns the measurement of checks and balances. The precise construction of the judicial independence variable is immaterial, since its three ingredients are highly positively correlated with each other. On the other hand, there is a conceptual question concerning our construction of constitutional review, which in our analysis is the average of constitutional rigidity and judicial review. First, one can plausibly argue that constitutional review only matters if *both* the constitution is rigid and judicial review is available. To address this, we construct a measure of constitutional review which is a product of constitutional rigidity and judicial review. The results are very similar to those we

[14]The effect of judicial independence even controlling for legal origin becomes stronger, and statistically significant in more specifications, with additional continent controls (see Section 5).

present in the paper – this change does not matter. Second, one can argue that constitutional review only matters when courts are independent, and hence the theoretically correct measure of constitutional review is the product of our measure and judicial independence (or independence of the Supreme Court). As an empirical matter, making this change should make it harder to isolate the effects of the two types of checks and balances, since they now have common ingredients. Nonetheless, even with this change, judicial independence remains a particularly good determinant of economic freedom, while the revised constitutional review is more important for political freedom.

A crucial statistical issue for our analysis is reverse causality. After all, some countries occasionally change their constitutions in response to political circumstances that may themselves be captured by our measures of freedom. We have already raised two points bearing on reverse causality. First, by focusing on constitutions, we are looking at legal rules that change less frequently than do the government regulations or subjective estimates of freedom, and hence are more likely to be pre-determined. Second, and more deeply, both history and the evidence we present suggest that judicial independence is to a significant extent a feature of colonial transplantation, and as such is likely to be causal. To follow this logic, we repeat our analysis for the 43 countries in the sample that are former colonies. All our results survive and if anything become stronger. As one further way to address reverse causality, we repeat the analysis using a sample of 44 countries that have not changed their constitutions since 1980. For these countries, it may be realistic to treat constitutions as pre-determined if not exogenous. All of our basic results survive. These findings alleviate the concern about reverse causality.

A related objection is that both freedom and constitutional rules are determined by omitted factors, giving rise to spurious correlations. We note that we control for geography, ethno-linguistic

fractionalization, and per capita income in our regressions, which should at least partially deal with this problem. In addition, we have rerun all the regressions adding 7 continental dummy controls (keeping North and South America separate) to our set of standard controls. Interestingly, the results for judicial independence become generally stronger with continent controls, and in fact exert a statistically significant influence on the property rights index, the number of procedures, and government ownership of banks even in the regressions controlling for legal origin. On the other hand, the results for constitutional review lose statistical significance in the horse race regressions.

6. Conclusion.

In this paper, we examine two distinct types of constitutional checks and balances on the power of the parliament and the executive provided by the judiciary: judicial independence and constitutional review. Using data from 71 countries, we construct empirical measures of judicial independence and constitutional review, and examine their impact on economic and political freedom across countries.

The data show that both judicial independence and constitutional review are predictors of freedom. Judicial independence matters most for economic freedom, and constitutional review for political freedom.

We then go on to analyze the pervasive influence of legal origin on economic freedom around the world, and ask whether judicial independence can provide the micro-foundations of this influence. For one key measure of economic freedom, judicial independence wipes out the legal origin effect; for others, it merely reduces its size. We take this evidence to suggest that, consistent with theory, judicial independence is an important source of economic freedom, which explains part of the persistent finding of greater such freedom in the common law countries.

At the broadest level, our results provide strong empirical support for ideas going back to Locke, the Federalist papers, and Hayek, and enthusiastically revived in recent popular writings (Ferguson 2003, Zakaria 2003), which see the Anglo-American institutions of checks and balances as important guarantees of freedom. In this respect, our paper goes further than our previous work, which stressed the importance of legal origin for the nature of law enforcement and social control of business (see Djankov et al. 2003). The present paper shows that some of the central features of government, features that have profound consequences for human freedom and welfare, have common constitutional roots.

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Table 1: Description of the variables

This table describes the variables collected for the 71 countries included in our study.

1. Dependent variables:

Property rights index:

A rating of property rights in each country in 1997 (on a scale from 1 to 5). The more protection private property receives, the higher the score. The score is based, broadly, on the degree of legal protection of private property, the extent to which the government protects and enforces laws that protect private property, the probability that the government will expropriate private property, and the country's legal protection of private property. Source: *Holmes et al. (1997)*.

Number of procedures:

This variable measures the number of different steps that a start-up has to comply with in order to obtain a legal status, i.e. to start operating as a legal entity. The number of procedures ranges in the sample from 2 to 19. Source: *Djankov et al. (2002)*.

Employment laws index:

This index measures the level of worker protection through labor and employment laws. The employment laws index ranges from 0.77 to 2.31. Source: *Botero et al. (2003)*.

Government ownership of banks in 1995:

Share of the assets of the top 10 banks in a given country owned by the government of that country in 1995. Ranges from 0 to 1. Source: La Porta et al. (2002).

Democracy index:

Democracy score for the year 1994, except for Liberia where the latest available year (1989) was used. Ranges from 0 to 10, with lower values indicating a less democratic environment. Source: *Gurr and Jaggers (1996)*.

Political rights index:

Index of political rights in 1996 (on a scale from 1 to 7). Higher ratings indicate countries that come closer to the ideals suggested by the checklist questions of: (1) free and fair elections; (2) those elected rule; (3) there are competitive parties or other competitive political groupings; (4) the opposition has an important role and power; and (5) the entities have self-determination or an extremely high degree of autonomy. Source: *Freedom House (1996)*.

Human rights index:

A measure of 37 criteria based on the rights enumerated in the three major UN treaties: 1948 Universal Declaration of Human Rights, 1996 International Covenant on Civil and Political Rights, International Covenant on Economics, Social, and Cultural Rights. Ranges from 17 to 99 in the sample, with higher scores indicating better human rights. Source: *Humana (1992)*.

2. Independent Variables:

Tenure of Supreme Court judges:

This variable measures the tenure of Supreme Court judges (highest court in any country). The variable takes three possible values: 2 - if tenure is lifelong, 1 - if tenure is more than six years but not lifelong, 0 - if tenure is less than six years. Source: collected mainly from the constitutions of countries as well as secondary sources.

Tenure of administrative court judges:

This variable measures the tenure of the highest ranked judges ruling on administrative cases. The variable takes three possible values: 2 - if tenure is lifelong, 1 - if tenure is more than six years but not lifelong, 0 - if tenure is less than six years. Source: collected mainly from the constitutions of countries as well as secondary sources.

Case law:

This variable is a dummy taking value 1 if judicial decisions in a given country are a source of law, 0 otherwise. Source: *David (1973)*.

Judicial independence:

Judicial independence is computed as the normalized sum of: (i) the tenure of Supreme Court judges (ii) the tenure of administrative Court judges (iii) the case law variable. Source: *Authors' calculations based on sources mentioned above*.

Rigidity of constitution:

This variable measures (on a scale from 1 to 4) how hard it is to change the constitution in a given country. One point each is given if the approval of the majority of the legislature, the chief of state and a referendum is necessary in order to change the constitution. An additional point is given for each of the following: if a supermajority in the legislature (more than 66% of votes) is needed, if both houses of the legislature have to approve, if the legislature has to approve the amendment in two consecutive legislative terms or if the approval of a majority of state legislature is required. Source: *Maddex (1995)*.

Judicial review*:*

This variable measures the extent to which judges (either Supreme Court or constitutional court) have the power to review the constitutionality of laws in a given country. The variable takes three values: 2- if there is full review of constitutionality of laws, 1 - if there is limited review of constitutionality of, 0 - if there is no review of constitutionality of laws. Source: *Maddex (1995)*.

Constitutional review:

Constitutional review is computed as the normalized sum of: (i) the judiciary review index (ii) the rigidity of the constitution index. Source: *Authors' calculations based on sources mentioned above*.

Legal origin (LO):

Identifies the legal origin of the Company Law or Commercial Code of each country. There are five possible origins: (1) English Common Law; (2) French Commercial Code; (3) German Commercial Code; (4) Scandinavian Commercial Code; and (5) Socialist/Communist laws. Source: *La Porta et al. (1998), extended using Reynolds and Flores (1989); and Central Intelligence Agency (1996)*.

Ethnolinguistic fractionalization:

Average value of five different indices of ethnolinguistic fractionalization. Its value ranges from 0 to 1. The five component indices are: (1) index of ethnolinguistic fractionalization in 1960, which measures the probability that two randomly selected people from a given country will not belong to the same ethnolinguistic group (the index is based on the number and size of population groups as distinguished by their ethnic and linguistic status); (2) and (3) probability of two randomly selected individuals speaking different languages; (4) percent of the population not speaking the official language; and (5) percent of the population not speaking the most widely used language. Sources: *Easterly and Levine (1997).*

Latitude:

The absolute value of the latitude of the country, scaled to take values between 0 and 1. Source: *Central Intelligence Agency (1996)*.

Ln GDP per capita:

Logarithm of gross domestic product per capita in US dollars for 1998. Ranges from 4.5 to 10.5 in the sample. Source*: United Nations (2000)*.

Table 2: Correlations of independent variables

Correlations of independent variables for the sample of 71 countries around the world. All variables are defined in Table 1.

	JUDICIAL INDEPENDENCE				CONSTITUTIONAL REVIEW			LEGAL ORIGIN	
	Supreme Court tenure	Administrative court tenure	Case law	Judicial independence	Rigidity of Constitution	Judicial review	Constitutional review	English legal origin	French legal origin
Supreme Court tenure	1								
Administrative court tenure	0.8325*	1							
Case law	0.3554*	0.3778*	1						
Judicial independence	0.8247*	0.8447*	0.7828*	1					
Rigidity of Constitution	0.0313	0.0975	-0.0786	-0.007	1				
Judicial review	0.3356*	0.3447*	0.1887	0.3121*	0.2920*	1			
Constitutional review	0.2620*	0.3028*	0.0967	0.2242	0.7217*	0.8727*	1		
English legal origin	0.3544*	0.3987*	0.5217*	0.5349*	-0.0608	0.096	0.2198	1	
French legal origin	-0.0657	-0.1871	-0.5927*	-0.4298*	0.0224	-0.0106	-0.2766*	-0.6451*	1
Socialist legal origin	-0.6345*	-0.5371*	-0.2580*	-0.5102*	-0.1358	-0.3962*	-0.3560*	-0.1691	-0.2277

Note: * Significant at 5%

TABLE 3: JUDICIAL INDEPENDENCE

The table presents the results of OLS regressions. The dependent variables are four proxies for economic freedom: (1) Property rights index; (2) Number of procedures; (3) Employment laws index; and (4) Government ownership of banks; and three proxies for political freedom: (5) Democracy index; (6) Political rights index; and (7) Human rights index. In Panel A the independent variable is an index of judicial independence. In Panel B the independent variables are: (1) Index of judicial independence; (2) Ethnolinguistic fractionalization; (3) Latitude; and (4) Ln GDP per capita. All variables are defined in Table 1. Robust standard errors are shown in parentheses.

PANEL A: NO CONTROLS

	(1) Property Rights Index	(2) Number of Procedures	(3) Employment Laws Index	(4) Government Banks	(5) Democracy Index	(6) Political Rights Index	(7) Human Rights Index
independence	2.190***	-8.061***	-0.799***	-0.417***	3.714**	2.215***	22.473**
	(0.370)	(1.881)	(0.191)	(0.119)	(1.403)	(0.763)	(9.464)
Constant	2.022***	15.339***	2.112***	0.708***	3.321***	3.070***	50.822***
	(0.308)	(1.566)	(0.169)	(0.097)	(1.108)	(0.587)	(7.801)
Observations	66	54	54	60	69	68	63
R-squared	0.31	0.28	0.25	0.17	0.08	0.10	0.09

PANEL B: WITH CONTROLS

	(1) Property Rights Index	(2) Number of Procedures	(3) Employment Laws Index	(4) Government Banks	(5) Democracy Index	(6) Political Rights Index	(7) Human Rights Index
independence	1.879***	-5.965**	-0.606***	-0.285**	3.808**	1.642*	19.839*
	(0.399)	(2.528)	(0.217)	(0.117)	(1.504)	(0.839)	(10.421)
Constant	-1.554***	25.520***	2.669***	1.673***	-2.319	-1.986	-6.374
	(0.538)	(3.276)	(0.429)	(0.255)	(2.873)	(1.383)	(15.038)
Observations	66	54	54	60	69	68	63
R-squared	0.73	0.50	0.33	0.38	0.40	0.48	0.50

Note: * significant at 10%; ** significant at 5%; *** significant at 1%

TABLE 4 : CONSTITUTIONAL REVIEW

The table presents the results of OLS regressions. The dependent variables are four proxies for economic freedom: (1) Property rights index; (2) Number of procedures; (3) Employment laws index; and (4) Government ownership of banks; and three proxies for political freedom: (5) Democracy index; (6) Political rights index; and (7) Human rights index. In Panel A the independent variable is an index of constitutional review. In Panel B the independent variables are: (1) Index of constitutional review; (2) Ethnolinguistic fractionalization; (3) Latitude; and (4) Ln GDP per capita. All variables are defined in Table 1. Robust standard errors are shown in parentheses.

PANEL A: NO CONTROLS

	(1) Property Rights Index	(2) Number of Procedures	(3) Employment Laws Index	(4) Government Banks	(5) Democracy Index	(6) Political Rights Index	(7) Human Rights Index
constitutional	1.410*	3.009	0.088	-0.218	4.106**	2.420**	30.864**
	(0.718)	(2.267)	(0.189)	(0.173)	(2.007)	(1.176)	(13.173)
Constant	2.776***	7.078***	1.418***	0.527***	3.611***	3.252***	49.249***
	(0.480)	(1.423)	(0.117)	(0.112)	(1.288)	(0.767)	(8.867)
Observations	68	54	54	61	71	70	65
R-squared	0.09	0.03	0.00	0.04	0.07	0.09	0.12

PANEL B: WITH CONTROLS

	(1) Property Rights Index	(2) Number of Procedures	(3) Employment Laws Index	(4) Government Banks	(5) Democracy Index	(6) Political Rights Index	(7) Human Rights Index
constitutional	1.312**	2.228	0.007	-0.177	4.436***	2.537***	32.606***
	(0.536)	(1.408)	(0.164)	(0.154)	(1.518)	(0.822)	(9.429)
Constant	-2.559***	25.174***	2.754***	1.773***	-5.919**	-3.860***	-30.056*
	(0.565)	(3.430)	(0.432)	(0.251)	(2.749)	(1.358)	(15.421)
Observations	68	54	54	61	71	70	65
R-squared	0.61	0.42	0.23	0.32	0.41	0.52	0.56

Note: * significant at 10%; ** significant at 5%; *** significant at 1%

TABLE 5: JUDICIAL INDEPENDENCE AND CONSTITUTIONAL REVIEW

The table presents the results of OLS regressions. The dependent variables are four proxies for economic freedom: (1) Property rights index; (2) Number of procedures; (3) Employment laws index; and (4) Government ownership of banks; and three proxies for political freedom: (5) Democracy index; (6) Political rights index; and (7) Human rights index. In Panel A the independent variables are: (1) Index of judicial independence; and (2) Index of constitutional review. In Panel B the independent variables are: (1) Index of judicial independence; (2) Index of constitutional review; (3) Ethnolinguistic fractionalization; (4) Latitude; and (5) Ln GDP per capita. All variables are defined in Table 1. Robust standard errors are shown in parentheses.

PANEL A: NO CONTROLS

	(1) Property Rights Index	(2) Number of Procedures	(3) Employment Laws Index	(4) Government Banks	(5) Democracy Index	(6) Political Rights Index	(7) Human Rights Index
independence	2.102***	-8.319***	-0.810***	-0.404***	3.253**	1.950**	18.881**
	(0.357)	(1.739)	(0.181)	(0.117)	(1.446)	(0.770)	(8.632)
constitutional	0.514	3.709**	0.156	-0.079	2.438	1.411	19.848
	(0.499)	(1.631)	(0.174)	(0.141)	(2.012)	(1.166)	(12.744)
Constant	1.794***	13.337***	2.027***	0.744***	2.255*	2.453***	42.317***
	(0.365)	(1.767)	(0.186)	(0.116)	(1.260)	(0.719)	(8.958)
Observations	66	54	54	60	69	68	63
R-squared	0.32	0.32	0.26	0.17	0.10	0.13	0.14

PANEL B: WITH CONTROLS

	(1) Property Rights Index	(2) Number of Procedures	(3) Employment Laws Index	(4) Government Banks	(5) Democracy Index	(6) Political Rights Index	(7) Human Rights Index
independence	1.738***	-6.413***	-0.619***	-0.274**	3.070**	1.178	14.113*
	(0.355)	(2.383)	(0.215)	(0.117)	(1.524)	(0.784)	(8.316)
constitutional	0.609*	3.028**	0.084	-0.056	2.951*	1.863**	24.286**
	(0.325)	(1.199)	(0.170)	(0.139)	(1.594)	(0.878)	(9.447)
Constant	-1.897***	23.793***	2.621***	1.699***	-3.997	-3.050**	-19.111
	(0.559)	(3.316)	(0.443)	(0.251)	(2.870)	(1.466)	(15.854)
Observations	66	54	54	60	69	68	63
R-squared	0.74	0.53	0.33	0.38	0.43	0.52	0.57

Note: * significant at 10%; ** significant at 5%; *** significant at 1%

TABLE 6: LEGAL ORIGIN

The table presents the results of OLS regressions. The dependent variables are four proxies for economic freedom: (1) Property rights index; (2) Number of procedures; (3) Employment laws index; and (4) Government ownership of banks; and three proxies for political freedom: (5) Democracy index; (6) Political rights index; and (7) Human rights index. In Panel A the independent variables are a set of legal origin dummy variables. In Panel B the independent variables are: (1) a set of legal origin dummy variables; (2) Ethnolinguistic fractionalization; (3) Latitude; and (4) Ln GDP per capita. French legal origin is the ommitted category. All variables are defined in Table 1. Robust standard errors are shown in parentheses.

PANEL A: NO CONTROLS

	(1) Property Rights Index	(2) Number of Procedures	(3) Employment Laws Index	(4) Government Banks	(5) Democracy Index	(6) Political Rights Index	(7) Human Rights Index
legal origin - british	0.729**	-5.249***	-0.663***	-0.180*	0.095	0.140	-0.843
	(0.302)	(1.038)	(0.092)	(0.096)	(1.145)	(0.597)	(6.181)
legal origin - socialist	-1.892***	1.435	-0.101	0.542***	-5.687***	-3.469***	-40.207***
	(0.353)	(2.351)	(0.109)	(0.056)	(0.719)	(0.370)	(4.934)
legal origin - german	1.774***	-2.732***	-0.473***	-0.114	3.646***	2.331***	19.793**
	(0.211)	(1.012)	(0.153)	(0.120)	(0.957)	(0.414)	(8.109)
legal origin - scandinavian	1.574***	-8.065***	-0.605***	-0.095	4.313***	2.531***	31.793***
	(0.281)	(0.799)	(0.195)	(0.114)	(0.719)	(0.370)	(4.406)
Constant	3.226***	11.565***	1.805***	0.451***	5.687***	4.469***	66.207***
	(0.211)	(0.755)	(0.070)	(0.056)	(0.719)	(0.370)	(4.390)
Observations	66	54	54	60	69	68	63
R-squared	0.39	0.48	0.53	0.19	0.22	0.28	0.31
p-value for joint significance of the legal origin variables	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PANEL B: WITH CONTROLS

	(1) Property Rights Index	(2) Number of Procedures	(3) Employment Laws Index	(4) Government Banks	(5) Democracy Index	(6) Political Rights Index	(7) Human Rights Index
legal origin - british	0.775***	-5.177***	-0.679***	-0.138	0.926	0.234	2.568
	(0.262)	(1.141)	(0.100)	(0.085)	(1.160)	(0.610)	(6.557)
legal origin - socialist	-1.321***	-0.724	-0.134	0.262**	-5.283***	-2.783***	-32.302***
	(0.422)	(1.895)	(0.143)	(0.110)	(1.020)	(0.546)	(6.162)
legal origin - german	0.831***	-0.640	-0.385**	0.053	1.558*	0.749*	4.501
	(0.254)	(1.059)	(0.155)	(0.133)	(0.903)	(0.411)	(7.390)
legal origin - scandinavian	0.459	-4.863***	-0.419*	0.032	0.657	0.180	10.656
	(0.337)	(1.113)	(0.217)	(0.136)	(1.059)	(0.559)	(6.618)
Constant	-0.427	21.365***	2.044***	1.538***	0.974	-0.375	15.635
	(0.726)	(3.330)	(0.402)	(0.311)	(2.980)	(1.416)	(14.534)
Observations	66	54	54	60	69	68	63
R-squared	0.68	0.64	0.57	0.38	0.41	0.50	0.53
p-value for joint sign. of the legal origin variables	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01

Note: * significant at 10%; ** significant at 5%; *** significant at 1%

TABLE 7: JUDICIAL INDEPENDENCE, CONSTITUTIONAL REVIEW AND LEGAL ORIGIN

The table presents the results of OLS regressions. The dependent variables are four proxies for economic freedom: (1) Property rights index; (2) Number of procedures; (3) Employment laws index; and (4) Government ownership of banks; and three proxies for political freedom: (5) Democracy index; (6) Political rights index; and (7) Human rights index. In Panel A the independent variables are: (1) Index of judicial independence; (2) Index of constitutional review;and (3) a set of legal origin dummy variables. In Panel B the independent variables are: (1) Index of judicial independence; (2) Index of constitutional review; (3) a set of legal origin dummy variables; (4) Ethnolinguistic fractionalization; (5) Latitude; and (6) Ln GDP per capita. French legal origin is the ommitted category. All variables are defined in Table 1. Robust standard errors are shown in parentheses.

PANEL A: NO CONTROLS

	Property Rights Index	Number of Procedures	Employment Laws Index	Government Banks	Democracy Index	Political Rights Index	Human Rights Index
independence	1.616***	-2.779	-0.375	-0.243	1.962	1.119	8.698
	(0.560)	(2.623)	(0.232)	(0.166)	(2.232)	(1.171)	(12.794)
constitutional	0.107	3.304**	0.034	-0.040	1.016	0.546	12.057
	(0.500)	(1.251)	(0.132)	(0.155)	(2.099)	(1.204)	(13.902)
legal origin - british	0.094	-4.294***	-0.554***	-0.091	-0.649	-0.285	-3.997
	(0.361)	(1.172)	(0.099)	(0.105)	(1.418)	(0.761)	(7.458)
legal origin - socialist	-0.893	1.022	-0.346	0.377**	-4.079**	-2.565***	-29.954**
	(0.566)	(3.204)	(0.233)	(0.145)	(1.656)	(0.875)	(11.971)
legal origin - german	1.531***	-2.727***	-0.444**	-0.068	3.192***	2.123***	17.237*
	(0.218)	(0.850)	(0.169)	(0.129)	(1.082)	(0.466)	(8.855)
legal origin - scandinavian	0.906***	-7.007***	-0.489**	0.003	3.468***	2.052***	28.576***
	(0.330)	(1.128)	(0.203)	(0.125)	(1.139)	(0.616)	(6.698)
Constant	2.209***	11.427***	2.044***	0.622***	3.910**	3.474***	53.944***
	(0.540)	(2.364)	(0.228)	(0.159)	(1.832)	(0.992)	(13.387)
Observations	66	54	54	60	69	68	63
R-squared	0.46	0.53	0.55	0.21	0.24	0.29	0.33
p-value for joint significance of the legal origin variables	<0.01	<0.01	<0.01	0.10	<0.01	<0.01	<0.01

PANEL B: WITH CONTROLS

	Property Rights Index	Number of Procedures	Employment Laws Index	Government Banks	Democracy Index	Political Rights Index	Human Rights Index
independence	1.592***	-4.443	-0.458*	-0.228	2.380	0.933	8.843
	(0.536)	(3.053)	(0.228)	(0.170)	(2.168)	(1.147)	(12.183)
constitutional	0.547	1.850*	-0.045	-0.087	2.386	1.539	21.002*
	(0.355)	(1.008)	(0.142)	(0.145)	(1.727)	(0.974)	(11.130)
legal origin - british	0.206	-4.192***	-0.578***	-0.063	0.094	-0.101	-0.551
	(0.292)	(1.223)	(0.099)	(0.092)	(1.190)	(0.637)	(5.929)
legal origin - socialist	-0.181	-2.824	-0.476*	0.090	-2.829	-1.539	-17.497
	(0.588)	(3.235)	(0.248)	(0.161)	(1.724)	(0.976)	(12.624)
legal origin - german	0.532**	-0.484	-0.337*	0.105	0.729	0.331	-0.691
	(0.248)	(0.962)	(0.176)	(0.142)	(1.035)	(0.429)	(8.422)
legal origin - scandinavian	-0.200	-3.711***	-0.285	0.134	-0.715	-0.476	5.023
	(0.328)	(1.346)	(0.230)	(0.149)	(1.295)	(0.669)	(7.778)
Constant	-1.603*	22.343***	2.380***	1.717***	-2.165	-2.144	-6.794
	(0.811)	(4.248)	(0.452)	(0.330)	(3.462)	(1.791)	(21.341)
Observations	66	54	54	60	69	68	63
R-squared	0.76	0.69	0.60	0.41	0.45	0.54	0.58
p-value for joint significance of the legal origin variables	0.07	<0.01	<0.01	0.61	0.24	0.13	0.59

Note: * significant at 10%; ** significant at 5%; *** significant at 1%

Appendix A: Dependent variables by country

	DEPENDENT VARIABLES						
Country	Property Rights Index	Number of Procedures	Employment Laws Index	Government Banks	Democracy Index	Political Rights Index	Human Rights Index
Algeria	3	.	.	1.00	0	2	66
Argentina	4	13	1.58	0.61	8	6	84
Australia	5	2	0.89	0.12	10	7	91
Austria	5	8	0.77	0.50	10	7	95
Bangladesh	2	.	.	0.95	9	5	59
Belgium	5	7	1.74	0.28	10	7	96
Brazil	3	11	2.31	0.32	10	6	69
Canada	5	2	1.19	0.00	10	7	94
Chile	5	10	1.46	0.20	9	6	80
China	2	10	1.59	0.99	0	1	21
Colombia	3	17	2.02	0.54	9	4	60
Cuba	1	.	.	.	0	1	30
Denmark	5	3	0.90	0.09	10	7	98
Ecuador	.	16	1.75	0.41	9	6	83
Egypt	3	11	1.81	0.89	0	2	50
Ethiopia	2	.	.	.	2	4	.
Finland	5	3	1.75	0.31	10	7	99
France	4	15	1.47	0.17	8	7	94
Germany	5	8	1.76	0.36	10	7	98
Ghana	3	10	1.14	.	1	4	53
Greece	4	15	1.82	0.78	10	7	87
Haiti	1	.	.	.	8	3	.
Honduras	3	.	.	0.30	6	5	65
Iceland	5	.	.	0.71	10	7	.
India	3	11	1.19	0.85	8	4	54
Indonesia	3	11	1.68	0.43	0	1	34
Iran	1	.	.	1.00	0	2	22
Iraq	1	.	.	0.94	0	1	17
Ireland	5	3	1.07	0.04	10	7	94
Israel	4	5	1.29	0.65	9	7	76
Italy	4	11	1.36	0.36	10	7	90
Japan	5	11	1.27	0.00	10	7	82
Jordan	4	12	1.49	0.26	4	4	65
Kenya	3	9	1.26	0.30	0	1	46
Kuwait	5	.	.	0.33	0	3	33
Lebanon	3	9	1.14	0.07	2	2	.
Liberia	.	.	.	.	0	1	.
Libya	1	.	.	0.95	0	1	24

Appendix A: Dependent variables by country

DEPENDENT VARIABLES (CONTINUED)							
Country	Property Rights Index	Number of Procedures	Employment Laws Index	Government Banks	Democracy Index	Political Rights Index	Human Rights Index
Malaysia	4	7	0.90	0.10	8	4	61
Mexico	3	15	1.91	0.36	1	4	64
Mozambique	2	19	2.25	.	6	5	53
Nepal	3	.	.	.	8	5	69
Netherlands	5	6	1.69	0.09	10	7	98
New Zealand	5	3	1.03	0.00	10	7	98
Nicaragua	2	.	.	0.63	6	4	75
Nigeria	3	9	1.32	0.10	0	1	49
North Korea	1	.	.	.	0	1	20
Norway	5	4	1.26	0.44	10	7	97
Pakistan	4	8	1.06	0.86	8	5	42
Panama	3	7	2.28	0.17	8	6	81
Peru	3	6	1.74	0.26	2	3	54
Philippines	4	9	1.63	0.27	8	6	72
Portugal	4	10	2.29	0.26	10	7	92
Saudi Arabia	5	.	.	0.29	0	1	29
Singapore	5	6	0.85	0.14	2	3	60
South Africa	3	9	1.05	0.00	8	7	50
South Korea	5	11	1.27	0.25	10	6	59
Spain	4	10	2.10	0.02	9	7	87
Sweden	4	4	0.90	0.23	10	7	98
Switzerland	5	7	1.28	0.13	10	7	96
Syria	2	.	.	1.00	0	1	30
Taiwan	.	8	1.65	0.77	6	.	.
Thailand	5	8	1.72	0.17	6	5	62
Turkey	4	12	1.74	0.56	9	3	44
Uganda	4	11	1.74	.	0	3	46
United Kingdom	5	4	1.02	0.00	10	7	93
USA	5	3	0.94	0.00	10	7	90
Venezuela	3	14	2.26	0.58	8	5	75
Vietnam	1	16	1.82	0.99	0	1	27
Zambia	3	5	1.17	.	6	5	57
Zimbabwe	3	5	0.89	0.30	0	3	65
Average	**3.56**	**8.87**	**1.47**	**0.40**	**5.93**	**4.61**	**66.18**

Appendix B: Independent variables by country

INDEPENDENT VARIABLES							
Country	Supreme Court tenure	Administrative court tenure	Case law	Judicial Independence	Judicial Review	Rigidity of Constitution	Constitutional Review
Algeria	0	0	0	0.00	1	4	0.75
Argentina	2	2	1	1.00	2	2	0.67
Australia	2	2	1	1.00	2	3	0.83
Austria	2	2	0	0.67	2	2	0.67
Bangladesh	2	2	1	1.00	2	2	0.67
Belgium	2	2	0	0.67	1	3	0.58
Brazil	2	2	0	0.67	2	2	0.67
Canada	2	2	1	1.00	1	3	0.58
Chile	2	2	0	0.67	1	3	0.58
China	0	0	0	0.00	0	2	0.17
Colombia	1	1	0	0.33	2	2	0.67
Cuba	0	0	0	0.00	0	2	0.17
Denmark	2	2	1	1.00	2	3	0.83
Ecuador	2	2	1	1.00	2	3	0.83
Egypt	2	2	0	0.67	2	3	0.83
Ethiopia	2	2	0	0.67	1	3	0.58
Finland	2	2	1	1.00	0	2	0.17
France	2	0	0	0.33	1	3	0.58
Germany	2	2	1	1.00	2	3	0.83
Ghana	2	2	1	1.00	2	2	0.67
Greece	2	2	0	0.67	2	2	0.67
Haiti	1	1	0	0.33	1	4	0.75
Honduras	0	0	1	0.33	1	3	0.58
Iceland	2	2	1	1.00	2	4	1.00
India	2	2	1	1.00	2	3	0.83
Indonesia	2	2	1	1.00	0	2	0.17
Iran	2	0	0	0.33	0	1	0.00
Iraq	0	0	0	0.00	0	1	0.00
Ireland	2	2	1	1.00	2	3	0.83
Israel	2	2	1	1.00	0	1	0.00
Italy	2	2	0	0.67	2	2	0.67
Japan	1	1	1	0.67	2	4	1.00
Jordan	2	2	1	1.00	1	3	0.58
Kenya	2	2	1	1.00	2	1	0.50
Kuwait	2	2	0	0.67	1	3	0.58
Lebanon	2	2	0	0.67	1	3	0.58
Liberia	2	2	1	1.00	2	3	0.83
Libya	.	.	.	.	0	1	0.00

Appendix B: Independent variables by country

INDEPENDENT VARIABLES (CONTINUED)							
Country	Supreme Court tenure	Administrative court tenure	Case law	Judicial Independence	Judicial Review	Rigidity of Constitution	Constitutional Review
Malaysia	2	2	1	1.00	1	2	0.42
Mexico	1	1	0	0.33	2	3	0.83
Mozambique	2	2	0	0.67	2	2	0.67
Nepal	2	2	1	1.00	2	3	0.83
Netherlands	2	2	0	0.67	0	4	0.50
New Zealand	2	2	1	1.00	0	1	0.00
Nicaragua	1	1	0	0.33	1	2	0.42
Nigeria	2	2	1	1.00	2	4	1.00
North Korea	0	0	.	.	0	2	0.17
Norway	2	2	1	1.00	2	3	0.83
Pakistan	2	2	1	1.00	1	4	0.75
Panama	1	1	0	0.33	2	2	0.67
Peru	2	2	1	1.00	2	2	0.67
Philippines	2	2	1	1.00	2	2	0.67
Portugal	2	0	1	0.67	2	2	0.67
Saudi Arabia	2	2	1	1.00	0	1	0.00
Singapore	2	2	1	1.00	2	2	0.67
South Africa	2	2	1	1.00	2	2	0.67
South Korea	1	1	1	0.67	2	3	0.83
Spain	2	2	0	0.67	1	3	0.58
Sweden	2	2	1	1.00	1	2	0.42
Switzerland	1	1	1	0.67	0	2	0.17
Syria	2	2	0	0.67	1	3	0.58
Taiwan	2	2	1	1.00	2	2	0.67
Thailand	2	2	0	0.67	1	4	0.75
Turkey	2	2	1	1.00	1	2	0.42
Uganda	2	2	1	1.00	2	2	0.67
United Kingdom	2	2	1	1.00	0	1	0.00
USA	2	2	1	1.00	2	3	0.83
Venezuela	1	1	0	0.33	2	2	0.67
Vietnam	0	0	0	0.00	0	2	0.17
Zambia	2	2	1	1.00	1	2	0.42
Zimbabwe	2	2	1	1.00	1	3	0.58
Average	**1.67**	**1.59**	**0.59**	**0.75**	**1.28**	**2.46**	**0.56**